



U.S. Department of Transportation RAISE Grant Application

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PREPARED BY

Montgomery County

Department of Transportation

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MONTGOMERY COUNTY PLANNING BOARD
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION



Table of Contents

I.	Project Description	1
	Capital Crescent Trail History	2
	Community Connector Project Status.....	3
	Community Connector Detailed Project Description.....	4
II.	Project Location	10
III.	Grants, Sources, and Uses of Funds	12
IV.	Merit Criteria	14
	Safety.....	14
	Environmental Sustainability	15
	Quality of Life	16
	Mobility and Community Connectivity	17
	Economic Competitiveness and Opportunity	19
	State of Good Repair.....	20
	Partnerships and Collaboration	20
	Innovation	22
V.	Project Readiness	23
	Project Schedule.....	23
	Regional, State and Local Planning.....	24
	NEPA.....	25
	Local Environmental Permit Approval.....	26
	Public Engagement & Partnering.....	27
	Assessment of Project Risks and Mitigation Strategies	28
VI.	Benefit Cost Analysis	29

[Appendix A: Supplemental Drawings](#)

[Appendix B: Montgomery County Capital Improvement Project Budget](#)

[Appendix C: Letters of Support](#)

[Appendix D: Cost Benefit Analysis](#)

[Appendix E: Cost Benefit Spreadsheet](#)

I. Project Description

The design for the Purple Line in Bethesda could not accommodate the preservation of a section of the Capital Crescent Trail, leaving a 1,110-foot gap in the 11-mile trail. The proposed Community Connector Project will close this gap by providing safe, non-automobile dependent access to a transit hub. The project will expand options for people of all ages and abilities to access transit, schools, parks, local businesses, and employment while helping to achieve environmental goals.

Construction of the **Community Connector** (“the project”) will complete the final link in the Capital Crescent Trail (CCT or “the trail”), a shared use regional trail extending from Georgetown in Washington, D.C., to Bethesda and Silver Spring, Maryland. In addition to providing seamless completion of a heavily used trail, the project provides key enhancements to the bicycle network through Montgomery County’s first secure bicycle parking facility located in Bethesda’s major transit hub. Additionally, the integration of walking and biking options to the Metrorail and Purple Line will be transformative through the effective expansion of the non-auto-dependent transportation network. The project consists of an accessible, grade-separated crossing of Wisconsin Avenue (MD 355) in Bethesda, directly connecting from a public park to a major transit hub, allowing people to move safely, quickly, and unimpeded by one of the busiest arterial roadways in Montgomery County.

To support this project, Montgomery County is requesting \$25 million from USDOT, approximately 45 percent of the total (\$55.575 million) project cost. The remaining 55 percent (\$30,575,000) of the project cost will be provided by Montgomery County.

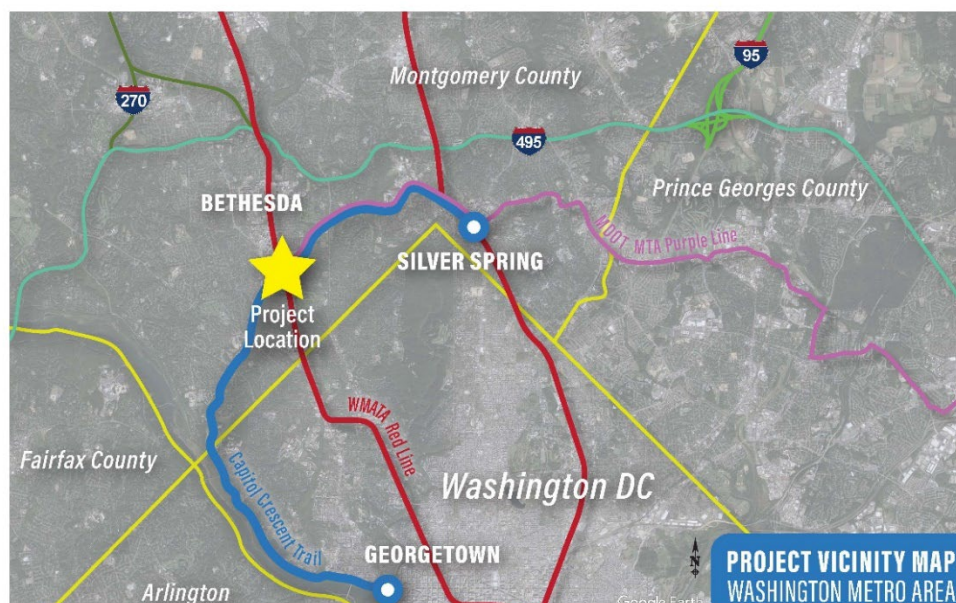


Figure 1: Project Vicinity Map

The Community Connector will increase safety, improve health, and enhance mobility for thousands. Over 60,000 people per month use the trail through Bethesda today¹ and usage is anticipated to increase once the CCT is completed with the implementation of this project. The project will increase the safety of bicyclists and pedestrians by creating a grade-separated crossing of the CCT from the approximately 40,000 daily vehicles using Wisconsin Avenue. Regionally, the Community Connector will provide direct access to the Maryland Department of Transportation (MDOT) Maryland Transit Administration's (MTA) Purple Line Light Rail, the Washington Metropolitan Area Transit Authority's (WMATA) Red Line Metrorail and bus transit center in downtown Bethesda. The completion of the CCT will also achieve a major segment of the extensive regional trail network called the National Capital Trails Network.

The Corridor Connector is a once-in-a-generation opportunity to modernize infrastructure, connect multiple modes to maximize the potential of existing transportation investments, and improve safety for thousands of people who walk, bike or roll on this route every day.

The project supports Justice 40 goals by completing the trail, which provides a high quality and safe bike, pedestrian and micromobility connection between a Historically Disadvantaged Community and [Equity Emphasis Areas](#) elsewhere in Montgomery County and major job centers such as Bethesda and Silver Spring, the latter of which is also an Equity Emphasis Area. This will help to achieve the County's [Vision Zero Initiative](#) to eliminate serious and fatal collisions for vehicle occupants, pedestrians and bicyclists by the end of 2030. Additionally, the project supports multimodal transit allowing residents to safely access **live-work-play** opportunities. The project will exceed Americans with Disabilities Act (ADA) requirements and is consistent with the seven principles of Universal Design.

With construction of the Community Connector to close the final gap in the extremely popular CCT, the region's vision for this safe connection between communities, including major urban and employment centers, and major transit facilities will be complete. This vision has been advanced over thirty years through continuous multi-jurisdiction support.

Capital Crescent Trail History

The CCT is a rails-to-trail project, built upon the former railbed of the B&O Railroad Georgetown Branch which was in operation from 1910 to 1985. Its transformation from a

¹ Capital Crescent Trail Counter Data: <https://data.eco-counter.com/public2/?id=100016888>

disused single-track rail line into a first-class trail has been an impressive example of cooperation between civic groups and governments. The 7-mile portion between Georgetown in Washington, D.C., and Bethesda was completed by the National Park Service and Montgomery County in 1996 and consists of an approximate 10-foot-wide paved shared-use path.

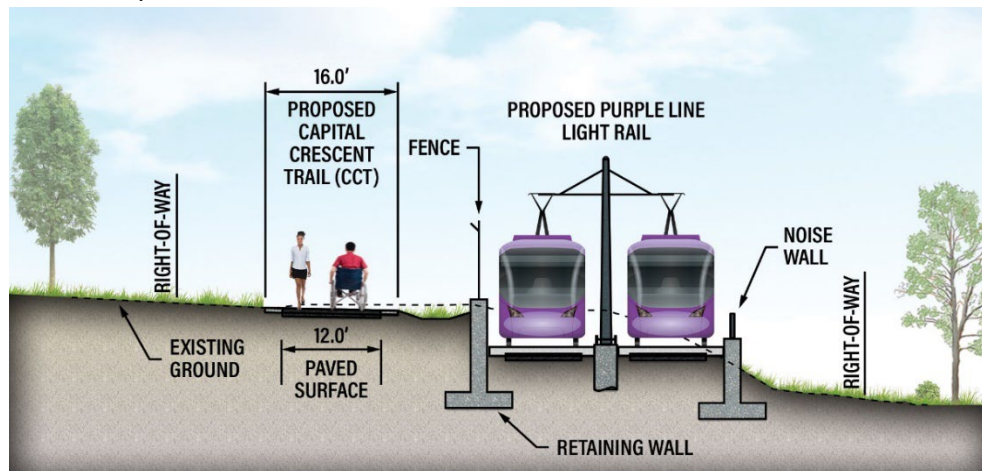


Figure 2: CCT/Purple Line Typical section, Bethesda to Lyttonsville

The portion from Bethesda to Silver Spring is currently closed for a significant upgrade to make it a world-class trail in coordination with the construction of the Purple Line, a new 16-mile light rail line from Bethesda in Montgomery County to New Carrollton in Prince George's County. It will re-open with the Purple Line in 2026 as an ADA-compliant, paved trail running alongside the Purple Line, extending into downtown Silver Spring, where it will connect to the Metropolitan Branch Trail (**Figure 2**).

The original trail included a grade-separated passage below Wisconsin Avenue, shown in **Figure 3**, into downtown Bethesda that was embraced by the community and heavily used. However, due to space constraints, the design for the Purple Line in this location could not accommodate preservation of the trail, creating a critical 1,110-foot gap in the 11-mile off-road trail. The Community Connector Project will close this gap and complete the trail.



Figure 3: Previous Trail crossing below

Community Connector Project Status

Montgomery County completed the project's preliminary engineering in October 2019 and anticipates finalizing the 100% design documents in February 2023. If funding is secured, the project can break ground in early 2024 and be open for use in late 2026, also aligning with the completion of the Purple Line and new elevator connections to the Metrorail Red Line.

Community Connector Detailed Project Description

The main aspects of the Community Connector Project are:

- Construction of the final 1,100 feet of the Capital Crescent Trail (as noted in Segments A, B and C below) including a grade separated passageway beneath Wisconsin Avenue.
- Construction of a CCT surface trail spur as noted in (Segment D below).
- Reconstruction of the northern end of Elm Street Park. The design integrates the slopes around the passageway's eastern gateway into a fully accessible playground.

The Community Connector's innovative and cost-effective design leverages public and private investments to create a safe and seamless user experience. The design for the final 1,100 feet of the Capital Crescent Trail has four distinct segments (illustrated in **Figure 4**) as it traverses through downtown Bethesda, from west to east:

- **Segment A:** A 16-foot-wide, 100-foot-long segment of the trail to connect the existing trail end with the future Red Line and Purple Line station entrances and the bicycle parking area at The Wilson & The Elm Building. The developer of the adjacent 4735 Bethesda Avenue completed a 14-foot-wide, 160-foot-long section of the CCT between Bethesda Avenue to the edge of their property in 2019 (shown in **dark blue** in Figure 4)

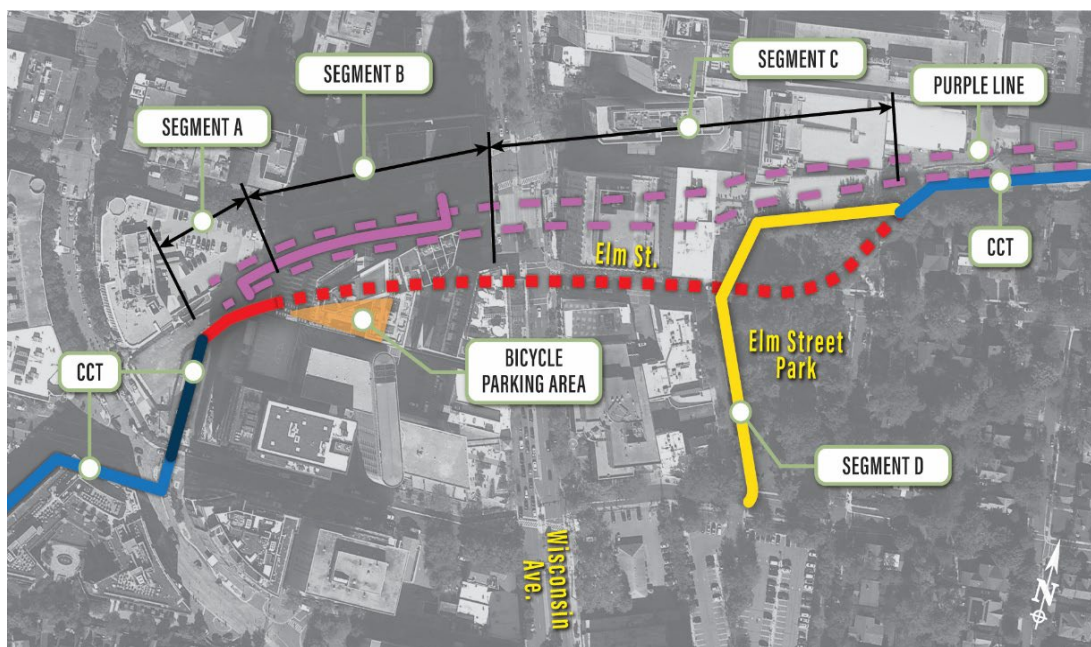


Figure 4: Community Connector Project Map (Refer to [Appendix A](#) for detailed drawings)

- **Segment B:** A 16-foot-wide, 425-foot-long enclosed passageway through the lower level of The Wilson & The Elm Building. As part of its development approval

processes, Carr Properties accommodated both the Purple Line and the CCT within the building which was completed in 2021. Carr constructed two parallel tunnels within the building's lowest level: one for the Purple Line and one for the CCT with a solid concrete, fire-rated wall separating them. They also provided space for a bicycle parking area at the west end of the building adjacent to the Purple Line and Red Line Bethesda Station entrances. The Community Connector Project will fit out the passageway and bicycle parking area.

- **Segment C:** A 16-foot-wide 575-foot-long enclosed passageway beneath Wisconsin Avenue, Elm Street, and Elm Street Park, including an emergency egress stair exiting on the north side of Elm Street. The northern end of Elm Street Park will be reconstructed to subsume the passageway's eastern gateway. The design integrates the resulting slopes into a fully accessible, multi-age, themed playground.
- **Segment D:** A 10-foot-wide paved surface trail spur around the northern and western edges of Elm Street Park for users making local connections. At the south end of 47th Street, the surface trail spur will cross Willow Lane to connect to an existing two-way separated bike lane along the south edge of Willow Lane.

Architecture: In an example of design excellence and to take advantage of the existing site topography, users will enter the enclosed passageway at-grade at both the east and the west entrances. The passageway is designed as a high-quality facility to accommodate the large number and varied type of trail users. The 16-foot width provides “shy” distance from



Figure 5: Artist Rendering of Community Connector Passageway (facing west)

the walls and enables two pedestrians or bicyclists to travel side-by-side while passed by a bicyclist, which is important given the high usage of the trail. The passageway is also designed with gentle curves to permit adequate stopping sight distance and slopes less than 5% to minimize sustained physical effort and allow all users to enjoy the trail.

To present a consistent appearance throughout the enclosed passageway, utility conduits and cables, electrical, security and communication conduits, and fire suppression dry standpipes will be concealed in a drop ceiling consisting of triangular acoustical metal panels. The drop ceiling will be set two-foot below the top of the 14-foot-tall passageway to provide 12-foot clear height for trail users. Linear LED light fixtures will be installed along the edge of the drop ceiling, 2-foot from the passageway walls.

Porcelain tile panels will be attached to the walls of the entire passageway (**Figure 5**). As the project is located within the Bethesda Arts & Entertainment District, the County will consult with and investigate teaming with local artists to add murals or artwork to the walls. The architectural design will also include fit-out of the two-story bicycle parking area for both short-term and long-term users that will be the first of its kind in Montgomery County and will serve trail, transit, and people with downtown Bethesda origins and destinations (**Figure 6**). The bottom level of the bicycle storage area will be a secured, long term, bicycle parking area with spots for 330 bikes. The long-term area will be protected with fencing and access will be limited to registered users with a key fob. The upper level of the bicycle storage area will be an unsecured, short-term, bicycle parking area with spots for approximately 130 bikes.



Figure 6: Artist rendering of bicycle parking area (facing east)

Maintenance of Vehicular, Bicycle and Pedestrian Traffic: To construct the project efficiently while minimizing impacts to the local community and a major commuter route to Bethesda and Washington D.C., the County proposes maintaining traffic on Wisconsin Avenue allowing all travel lanes and sidewalks to remain open during construction. Both vehicular and pedestrian traffic will be seamlessly maintained on temporary steel road plates allowing construction of the passageway to proceed below. The temporary steel road plates will be constructed during off-peak weekend closures. Similar temporary trench plates will be constructed at the corner of 47th Street and Elm Street to allow access the businesses on Elm Street.

Utilities: There are numerous utilities located within the footprint of the passageway including underground electric, fiberoptic, telecommunication, water, sanitary sewer, storm sewer and gas and overhead electric and telecommunication. During the initial stages of the design process, Montgomery County coordinated with all utility companies to understand the options and limitations for maintaining and relocating affected utilities. For example, during the early stages of the design process Verizon identified a major 18-way ductbank consisting of copper and fiber cables below the south curbline of Elm Street, aligned parallel to the initial proposed route. As the relocation of this ductbank would have both a major cost and schedule impact to the Project, the passageway alignment was shifted to avoid an impact. Other utilities will be supported in place during construction. For utilities which could not be maintained or supported during construction, MCDOT worked with the utility company to determine feasible options for relocation. An example of this is a 16" diameter water main located below the center of Elm Street. Coordination with Washington Suburban Sanitary Commission (WSSC), the utility owner, determined that the water main could be relocated in stages aligning with the passageway construction by providing temporary connections to adjacent businesses and backfeeding the water main.



Figure 7: People walking and biking in Bethesda

Code Requirements: The enclosed passageway is designed in compliance with all building, fire and NFPA code requirements and standards including providing lighting throughout the passageway with battery backup. In addition, while not required by code, emergency phones, closed circuit video surveillance and cell phone coverage will be provided throughout the passageway to ensure safety and comfort of all users.

Park Redevelopment: The portion of the CCT being constructed as part of the Purple Line will terminate at the northern limit of the Elm Street Park, a 2.1-acre park bounded by the Georgetown Branch / Purple Line to the north, 47th Street to the west, Willow Lane to the south and 46th Street to the east. The Community Connector Project will construct the CCT from that point and bring it across the park before continuing beneath Wisconsin Avenue. Elm Street Park is owned by Maryland National Capital Park and Planning Commission (MNCPPC) and features walking trails, picnic tables, playground equipment, a basketball court and wide, paved promenade between 46th and 47th streets. The Park is located between the Town of Chevy Chase and Bethesda and is heavily used by residents, students, and visitors for gathering, play and access to downtown Bethesda and the WMATA Red Line. **As the park's features and equipment are outdated and in need of refurbishment, a full redevelopment of the north end of the park surrounding the trail will be completed as part of the Community Connector project (Figure 8).**

Montgomery County and MNCPPC staff formed a cohesive team to combine the completion of the CCT and the Elm Street Park redevelopment into the Community Connector Project. This collaboration has led to exciting design opportunities for the park. The existing grade will be raised to cover the passageway's roof, providing more useable area within the park. The resulting slopes will be incorporated into the design of an interactive, fully accessible, multi-age, themed playground. Using the new topography to reinforce the playground theme, the older children's play area is envisioned as a crater mountain with a series of climbing rocks, ropes, and slides. The younger children's play area is designed with a crater lake theme with a play structure boat for imaginary play and a variety of play elements including slides and bouncing and swinging features (**Figure 9**).



Figure 8: Outdated Equipment at Elm Street Park

In addition to the play areas, the reconstructed park will feature a realigned promenade with new paving, retaining walls, site furnishings and lighting, an adult fitness area, a variety of seating options, accessible paths, shade structures, bike racks, lighting, fencing, a drinking fountain, landscape planting, and stormwater management. The entire park is ADA complaint allowing all users, young and old, the ability to enjoy the park.

The northern portion, approximately 0.8 acres, of the park will be used as a construction laydown area requiring it to be closed during the duration of construction. Reconstruction of the Park would occur during the later stages of the project after the construction of the passageway beneath Wisconsin Avenue is completed. The southern portion, approximately 1.3 acres, of the 2.1-acre park will remain open for use throughout construction. Due to the temporary occupancy of the northern portion of Elm Street Park, a Section 4(f) evaluation will likely be required. However, since Montgomery County has already had extensive coordination with MNCPPC and is designing the state-of-the-art Park reconstruction in conjunction with MNCPPC, a large part of the Section 4(f) evaluation has been completed, minimizing risk for the project.

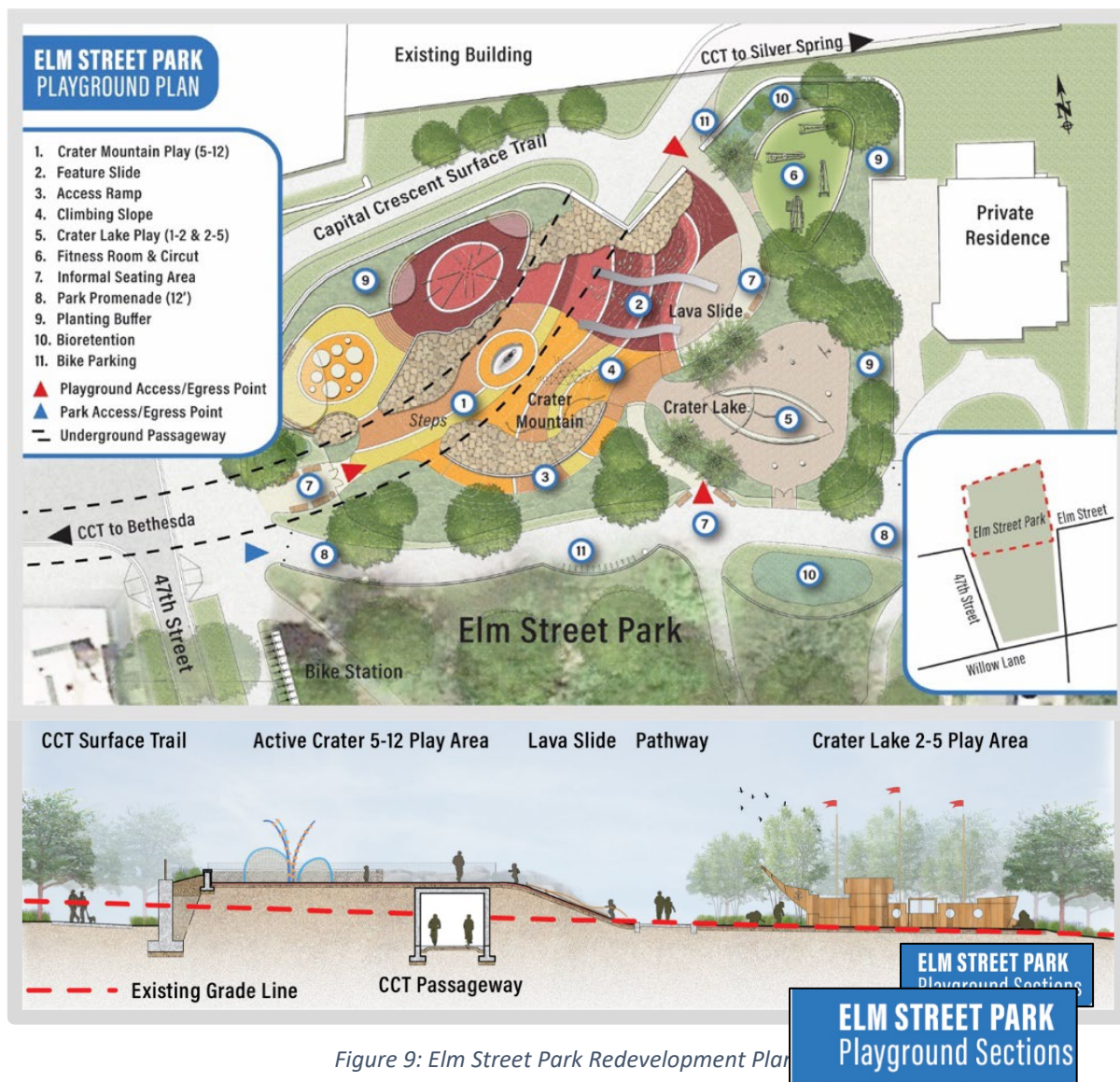


Figure 9: Elm Street Park Redevelopment Plan

II. Project Location

The Community Connector Project is in downtown Bethesda (census tract 7048.04) in Montgomery County, Maryland, within the Census-designated Washington D.C. – VA - MD Urbanized Area (UACE Code 92242) with a population of over 5 million.² (See Figure 1 for a project vicinity map.) Bethesda, an unincorporated census-designated place with a 2020 census population of 68,056, is a regional destination for dining, entertainment, and shopping while also serving as an employment hub and major residential center. Over 73,000 people work primary jobs in Bethesda, with nearly 33,000 of those jobs within a half-mile radius of the project.³ Tens of thousands more people work part-time jobs in the area. Major employers in Bethesda include Marriott International, the National Institutes of Health (NIH), Naval Support Activity Bethesda (Walter Reed), and many more. Montgomery County residents of all ages and backgrounds will be served by the Community Connector Project to safely access public transit, community gathering spaces, parks, schools, shopping and dining destinations in downtown Bethesda (**Figure 10**).



Figure 10: Map showing Community Connector Project Location and Local Destinations Served

² U.S. Census Bureau (2020). American Community Survey 5-year estimates. Retrieved from Census Reporter Profile page for Washington, DC--VA--MD Urbanized Area

<<http://censusreporter.org/profiles/40000US92242-washington-dc-va-md-urbanized-area/>>

³ U.S. Census Bureau (2019) OnTheMap Application and LEHD Origin-Destination Employment Statistics.

The project will benefit residents of historically disadvantaged communities, even though not located within one, by closing the gap in the CCT. The area of Lyttonsville in west Silver Spring, identified as census tracts 7026.02 and 7027, is a historically disadvantaged community located along the portion of CCT being constructed with the Purple Line (**Figure 11**). Lyttonsville is a historically black community founded by formerly enslaved people and still home to descendants of the original founders. The project will likewise benefit residents of [Equity Emphasis Areas](#) in Lyttonsville and Silver Spring (**Figure 12**).

Once the CCT between Bethesda and Silver Spring and the Community Connector Project is completed, residents of historically disadvantaged communities will be able to conveniently and safely access employment, parks, schools, government services and leisure opportunities in Bethesda and beyond to D.C. Historically disadvantaged community residents will also be able to directly and safely access the Purple Line and Red Line Bethesda Stations, including using the convenient and secure bicycle parking area. The Community Connector Passageway will reduce barriers to opportunity including automobile dependence as a form of barrier.

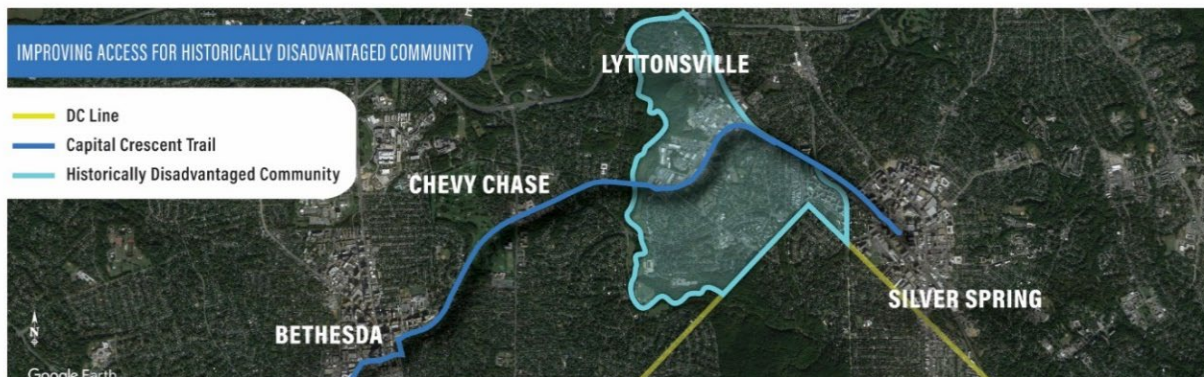


Figure 11: Improving Access for Historically Disadvantaged Community



Figure 12: Equity Emphasis Areas in Lyttonsville & Silver Spring

III. Grants, Sources, and Uses of Funds

Montgomery County is requesting \$25 million in RAISE Grant funding, approximately 45 percent of the total (\$55,575,000) project cost. The remaining 55 percent (\$30,575,000) of the project cost will be provided by Montgomery County's local match. The matching funds were included in the County's capital budgets adopted in May 2021.

Of the County's local matching funds, \$30,575,000 will be a cash contribution from the County's FY22 Capital Improvement Project (CIP) [budget](#)⁴. These contributions are documented in [Appendix B](#). The project components that are included in the \$55,575,000 program are summarized in **Figure 13** and **Figure 14**. The budget is based on the project cost estimate developed from the 70% design, including an 8% contingency.

Item Description	Estimated Cost	Federal		Local	
		Share	Percent	Share	Percent
Capital Infrastructure	\$49,428,434	\$25,000,000	49%	\$24,428,434	51%
Final Design and Engineering During Construction	\$5,842,366	–	–	\$5,842,366	100%
Personnel	\$304,200	–	–	\$304,200	100%
Total	\$55,575,000	\$25,000,000	45%	\$30,575,000	55%

Figure 13: Project Summary Costs

The County has also made, or has budgeted, for significant investments in adjacent Capital Improvement Projects that complement the Community Connector project including:

- Approximately \$130 million for construction of the [Bethesda Metrorail South Entrance](#), the new connection between the Purple Line light rail and the WMATA Red Line Bethesda stations with elevators, stairs, and escalators to the street level.
- Approximately \$60.5 million for the construction of the Capital Crescent Trail from Elm Street Park to Silver Spring.
- Approximately \$2.68 million for construction of separated two-way cycle track as a portion of the surface trail spur between 47th Street and Bethesda Avenue.

⁴ CCT CIP Budget:

https://www.montgomerycountymd.gov/OMB/Resources/Files/omb/pdfs/fy22/cip_pdf/P501316.pdf

- Approximately \$1.98 million for construction of the Silver Spring Green Trail connecting to the Metropolitan Branch Trail and CCT in Silver Spring.
- Approximately \$8.7 million to purchase a 0.4-acre site located at 4801 Bethesda Avenue. The site will hold the 100-foot-long surface trail and the future Capital Crescent Civic Green.
- Tax credit for Carr Properties to construct a portion of the passageway within The Wilson & The Elm Building.

Project Component	Estimated Cost
Capital Infrastructure	\$49,428,434
Community Connector Passageway	\$44,168,894
• General Conditions and Mobilization	\$14,107,693
• Maintenance of Traffic	\$2,191,998
• Drainage, Stormwater Management and Erosion and Sediment Control	\$600,261
• Passageway and Retaining Wall Structures	\$14,854,733
• Passageway Fit-out	\$10,275,768
• Street Reconstruction	\$1,911,944
• Landscaping	\$218,497
Utility Relocations	\$2,300,000
Bike Parking Area	\$185,424
Elm Street Park Reconstruction	\$2,782,116
Final Design and Engineering During Construction	\$5,842,366
Final Design and NEPA/Environmental	\$575,000
Engineering During Construction	\$1,250,000
Construction Management and Inspection	\$4,017,366
Personnel	\$304,200
Personnel Cost	\$304,200
Project Total	\$55,575,000
Federal Share	\$25,000,000
Local Share	\$30,575,000

Figure 14: Project Component Costs

IV. Merit Criteria

The Community Connector Project completes the vision for a continuous 11-mile shared use off-road commuter and recreational trail connecting Georgetown in Washington D.C. to Bethesda and Silver Spring, MD. It will separate walkers and bicyclists from crossing busy Wisconsin Avenue, provide direct access to two transit stations, and provide access to protected bicycle parking.

Safety

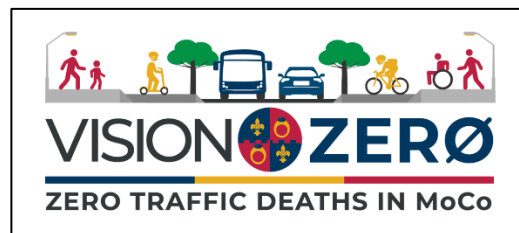
One of the project's primary purposes is to improve travel safety, especially for people walking, biking or rolling. [Crash data](#) in the study area demonstrated 87 crashes in a single year near the project – including 11 involving pedestrians and two (2) involving bicyclists. The Community Connector project will greatly improve travel safety by allowing thousands of daily pedestrians and bicyclists to avoid three street crossings including the heavily traveled Wisconsin Avenue (**Figure 15**).

Without the project, the surface trail will bring bicyclists and pedestrians on the CCT along 47th Street and then along Willow Lane to cross Wisconsin Avenue at an at-grade crossing. With an average of over 2,000 daily trail users on the CCT in Bethesda and 40,000 daily automobiles on Wisconsin Avenue this creates many potential conflicts and potential crashes between automobiles and both pedestrians and bicyclists. The CCT is tremendously popular with daily and monthly counts as high as 5,718 and 96,323 trail users, respectively.

The Community Connector project will provide a passageway beneath Wisconsin Avenue, allowing trail users to avoid crossing the busy Wisconsin Avenue and pass safely through downtown Bethesda with reduced delays from signalized intersections.

The primary benefits achieved by the Community Connector include:

- Safety
- Environmental sustainability
- Quality of life
- Mobility and community connectivity
- Partnership and collaboration



Completion of the helps achieve Montgomery County's Vision Zero initiative by year 2030. This project also addresses the USDOT National Roadway Safety Strategy's "Safe System Approach" principles.



Figure 15: Pedestrians crossing Wisconsin Avenue

The passageway will be equipped with lighting, video surveillance security cameras, blue light phones, a repeater system for public safety radios and cellular coverage, ventilation, emergency egress stairways, and roll-down gates at each end to restrict access if necessary – all to further enhance public safety.

Environmental Sustainability

Providing for environmentally sustainable transportation is a primary purpose of the Community Connector Project. The Project will construct the downtown Bethesda section of the CCT, which already has an average of over 2,000 users per day and complete the entire Capital Crescent Trail – providing a healthy and environmentally sustainable alternative to automobile travel. The Community Connector will also provide direct access to the Purple Line Bethesda light rail station, WMATA Bethesda Metro rail station and enclosed bicycle parking.

This vision for walking, biking and transit is critical to environmental sustainability has been part of the local and regional plans for decades.

The Community Connector project helps meet the goals of Montgomery County's Climate Action Plan to reduce the use of personal automobiles and increase use of transit and active transportation such as biking and walking to reduce greenhouse gas emissions.

Montgomery County makes a tremendous commitment to the environment and to clean and sustainable transportation, as evidenced by their [Sustainable Transportation Demand Management Vision for 2035](#), which seeks to reduce single occupancy vehicle driving, accelerate use of low emission vehicles and require climate-friendly development patterns. Transportation Demand Management (TDM) Districts accelerate that vision in each of the County's major business districts. The TDM District in Bethesda seeks to cut traffic congestion, increase transportation capacity, reduce air and noise pollution and help address climate change, and promote bicycle and pedestrian access and traffic safety. The Community Connector advances this vision for safe and environmentally sustainable mobility.

On weekdays, the trail is used by commuters, students and residents going to school, doctors' appointments and local attractions. On weekends, it is also used as a regional destination recreational trail for walking, jogging, and bicycling. With completion of the passageway and new 460 space bicycle parking facility, it is anticipated that trail usage will increase.

Quality of Life

Improving quality of life is a primary purpose of the Community Connector project. As discussed throughout this document, the project will enhance both recreational opportunities as well as purposeful travel throughout the Washington, D.C., urbanized area. By completing the important connection between the existing CCT west of Bethesda and the segment east of Bethesda, currently under construction, the project connects communities to one another and to important destinations.

The health benefits of increased walking and bicycling have been well documented in recent years. In fact, the USDOT's Benefit-Cost guidance includes recommended values for the reduced mortality rates associated with increased physical activity. Area residents will have more flexible and enhanced opportunities to reach employment, shopping and social destinations and other public transit connections without dependency on automobile travel, thereby enhancing quality of life for tens of thousands of area residents. Students will be more likely to experience increased mobility and independent travel with the added protection of a passageway that avoids the vehicular traffic in the corridor.

This important connection between the eastern and western portions of the CCT creates a continuous 11-mile multi-use trail. The CCT also connects to other regional trail systems such as the Metropolitan Branch Trail, Silver Spring Green Trail, Rock Creek Trail and C&O Canal Towpath (**Figure 16**). The CCT, Rock Creek Trail and C&O Canal Towpath will form a 22-mile loop. This system will greatly expand communities' opportunity for safe and stress-free travel and recreation across the region.

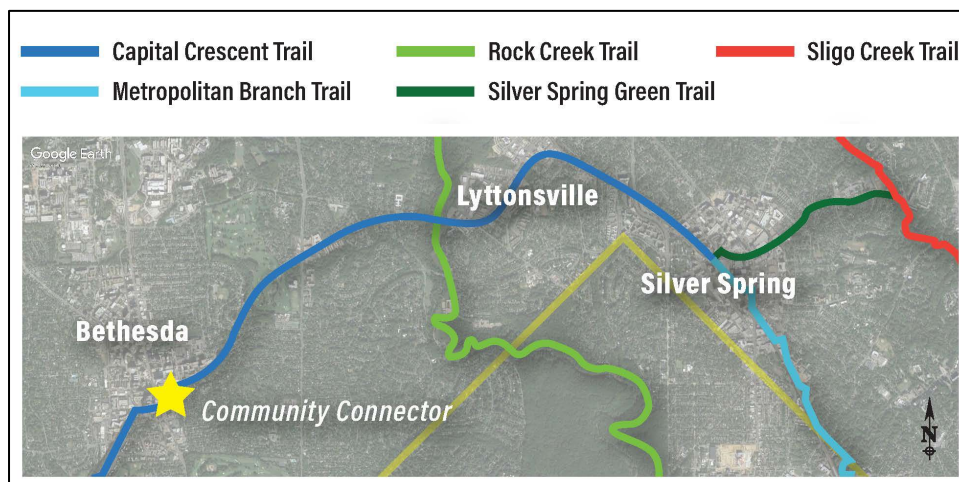


Figure 16: Regional Trail Connectivity Map

The Community Connector project will also include a redevelopment of the northern portion of Elm Street Park. The Park is the largest public open space in downtown Bethesda and is heavily used throughout the day by scores of employees of 700 nearby businesses, Town of Chevy Chase residents commuting to the Bethesda transit stations and many children from several local preschools who regularly use the Park's playgrounds and open

spaces. The Park redevelopment will increase the quality of life for these local users and residents throughout the Washington, D.C., region as it will be directly accessible from the CCT (**Figure 17**).

The Corridor Connector will also improve quality of life for residents of the more than 800 rent-restricted units within the project's direct vicinity. The [Bethesda Downtown Plan](#) prioritizes retaining and creating new affordable units to ensure an equitable and sustainable future for the area. The plan established a 15% Moderately Priced Dwelling Unit (MPDU) requirement for new optional method development with further incentives for the provision of 25% MPDUs. Hundreds more affordable units are being built or in the pipeline. For nearly a decade, Montgomery County Department of Transportation has [partnered](#) with private companies to redevelop public surface parking lots into mixed-use buildings that maintain public parking and provide more affordable housing.

Mobility and Community Connectivity

The Community Connector Project will reduce automobile dependence and encourage users to connect to transit, other communities and local live-work-play destinations, including school, employment, shopping and dining, without the use of a car.



Figure 17: Eastern Gateway to Community Connector passageway in Elm Street Park

The project constructs the final piece of the CCT which connects Washington D.C., Bethesda, Silver Spring, and many communities in between, including historically disadvantaged communities and equity emphasis areas. In so doing, the project also connects to other regional trail systems such as the Metropolitan Branch Trail, Silver Spring Green Trail, Rock Creek Trail and C&O Canal Towpath. This increases the bike or walking travelshed, providing easy access to a system which connects across Montgomery County and southward into Washington, D.C. Bicycles are allowed on Metrorail and the Purple Line as well, meaning that people from other areas of the region can access these trails by traveling to or from them by Metro.

The Community Connector Project also provides a direct connection between the CCT and the bicycle parking area to the Purple Line Bethesda station and WMATA Bethesda Metrorail station, completing the connection between walking, biking and transit (**Figure 18**). The complete CCT will also connect to the Purple Line and WMATA Metrorail stations in

Silver Spring and two other Purple Line stations between Silver Spring and Bethesda, including one in Lyttonsville.



Figure 18: Western Gateway to Community Connector passageway
(See [Appendix A](#) for map)

This project will increase access for the 3,600 students that attend elementary, middle and high schools with a half-mile of the project. Providing a safe, accessible and grade-separated crossing of Wisconsin Avenue will enable and encourage students, including those with disabilities, to walk, bike, roll or take transit to school. It will also make non-automotive travel to school a safer and more appealing transportation choice, thereby encouraging a healthy and active lifestyle from an early age. With a separated crossing of this major arterial, caregivers can feel more comfortable allowing students to travel to and from school independently.

The project adheres to the [Bethesda Streetscape Standards](#) and contributes to fostering design excellence and a high-quality public realm of pedestrian-oriented streets. Meeting all Americans with Disabilities Act (ADA) requirements, this Project provides significantly improved walking, biking and overall access for people with disabilities. The Community Connector Project is also designed consistent with the seven principles of Universal Design:

- **Equitable Use:** The same appealing space for all trail users without segregating or stigmatizing any users.
- **Flexibility in Use:** The passageway is 16-foot wide, providing ample space for all user paces.
- **Simple and Intuitive Use & Perceptible Information:** Clear directional signage and a single yellow stripe will be provided on the surface of the trail to direct users.
- **Tolerance for Error & Size and Space for Approach and Use:** The trail only uses slight horizontal and vertical curves as necessary and achieves adequate stopping sight distance for seated and standing users.

- **Low Physical Effort:** While approximately 250-feet of the passageway is designed at a 4.9% vertical slope, below the 5% ADA maximum allowable slope, the remaining 850-feet will be sloped less than 2% minimizing sustained physical effort and allowing comfortable use by all users. In addition, stacked bicycle racks with lift assist will be provided in the bicycle parking area.

Economic Competitiveness and Opportunity

The Community Connector project will provide a safe and uninterrupted connection to downtown Bethesda, a major economic center in Montgomery County home to approximately 68,000 residents and 73,000 jobs. The project will also improve connections to important regional transit services including the Purple Line and Red Line, thereby connecting County residents to jobs in Montgomery County and throughout the Washington D.C. region. This will improve economic competitiveness and provide opportunity.

A 2014 study by the George Washington University Center for Real Estate and Urban Analysis found that most of the office and retail absorption in metro areas during the recent real estate cycles occurred in walkable urban places (WalkUPs), areas defined by high density⁵. WalkUPs are characterized by higher density and a mix of diverse real estate types, connected to surrounding areas via multiple transportation options, such as bus and rail, bike routes and motor vehicles. This indicates a gradual shift from drivable sub-urban development as the dominant real-estate trend to walkable urban development. The report shows that WalkUPs perform better economically and that they make up a disproportionate portion of the economic production of a region. Therefore, the Community Connector Project can be expected to spur economic development in Montgomery County and the Washington D.C. region by increasing access to safe bicycle routes, bicycle parking and transit.

The Project construction will have an immediate economic impact on the community by creating approximately 193 jobs based on the latest plans and crew estimates from construction estimating software. These jobs are estimated to equate to 128.5 Full Time Equivalents (FTE) during the 24-to-30-month construction period. The construction jobs will vary in pay from \$18/hour to higher paying specialty management positions estimated at \$50/hour. The average salary is estimated at \$62,250 per year resulting in a direct economic impact of over \$8 million. These jobs will be supported by several County requirements:

- 21% minimum [minority, female, and disabled-owned business](#) participation
- [Prevailing Wage Law](#) to ensure construction workers are paid the going rate for their services

⁵: https://scholarspace.library.gwu.edu/concern/gw_works/6108vb984

- At least 10% of the contract amount awarded to Montgomery County [local businesses](#)

State of Good Repair

The Community Connector Project will improve the state of good repair of Elm Street Park, lessen maintenance needs on local roadways, upgrade utilities and roadways and develop a passageway connection that minimizes ongoing maintenance costs.

The pedestrian improvements identified for the Community Connector Project will create a new, modernized, passageway with direct access to local transit lines, enhancing the County's ongoing commitment to provide quality pedestrian access to all transit users. The project will also add bicycle parking enhancing the non-automotive mobility options in Bethesda. In addition, the Elm Street Park redevelopment will modernize an already heavily used recreation facility with its use anticipated to increase after the CCT connection is complete.

The project will also include replacement of utilities impacted by the construction including underground water mains, fiberoptic lines and electric lines and reconstruction of portions of Elm Street and Wisconsin Avenue including new sidewalks, pavement and streetlights. The replacement features will modernize these core infrastructure assets. Lastly, the community connector passageway will be constructed using reinforced concrete with waterproofing minimizing future maintenance during the 75-year service life.

Partnerships and Collaboration

The Community Connector Project has a long history of partnerships, collaboration and cooperation to advance the regional vision for multiuse trail connectivity. These partnerships and continued collaboration are a major factor contributing to the progress made to date on construction the CCT and to completing this final project to complete the vision.

Montgomery County has been supported by numerous jurisdictions and stakeholder groups that have been integral to the development, including:

- **Town of Chevy Chase:** Provided design input on project elements including the surface trail alignment along the Town's 47th Street and maintenance of traffic and access during construction
- **MNCPPC:** An integral partner who has worked together with Montgomery County to fully integrate the Park reconstruction as a unified design with the Community Connector Project. Provided design input into all aspects of the project starting during project planning and continuing today.



- **Maryland Department of Transportation:** Constructing the portion of the CCT along the Purple Line and providing design input on project elements affecting Wisconsin Avenue.
- **WMATA:** Providing support for the project as the new entrance to the Bethesda Red Line station will be served by the passageway and the bicycle parking area. Provided design reviews to ensure the project would have no adverse impacts to the Red Line tunnel below Wisconsin Avenue.
- **Carr Properties,** the private developer of The Wilson & The Elm Building, has also been an integral partner with Montgomery County on this project by constructing a 425-foot portion of the passageway within the building.
- **Washington Area Bicyclist Association and the Coalition for the Capital Crescent Trail:** Provided strong public support and design input for the project.



During design, Montgomery County has partnered with DBE firms to perform approximately 21% of the design; the same DBE partnering goals will be required during the construction phase as well.

Montgomery County has already made a significant investment in supplying the funding for the construction of the Capital Crescent Trail along the Purple Line and is committed to closing the gap to cement the CCT as a world-class trail facility for the region's bikers, pedestrians and commuters. While Montgomery County will be the sole grant recipient leading the development and implementation, the Project's many partners and stakeholders will continued to be intimately involved in the design and construction.

The project has a strong level of community support, as evidenced by the numerous letters of support included in [Appendix C](#).

Representatives from the following organizations provided letters of support:

- | | |
|---|--|
| • U.S. Congressional Delegation from Maryland | • Montgomery County Chamber of Commerce |
| • Montgomery County Executive | • Coalition for Smarter Growth |
| • Montgomery County Council | • Carr Properties |
| • Montgomery County Planning Board | • Washington Area Bicyclist Association |
| • Maryland Department of Transportation | • Coalition for the Capital Crescent Trail |
| • The Town of Chevy Chase | • Sierra Club |
| • Washington Metropolitan Area Transit Authority | • Purple Line Now |
| • National Capital Region Transportation Planning Board | |

Innovation

The Community Connector project will incorporate innovative concepts wherever possible. The Project includes several innovative construction techniques, an innovative project delivery and an innovative financing method to construct a portion of the passageway. As the passageway crosses below Wisconsin Avenue, a busy and critical arterial into Washington D.C., impacts to traffic during construction was a major concern during preliminary design. The County is planning on installing temporary steel plate bridges over the passageway work zone to maintain all lanes of traffic and both sidewalks and improve safety while construction of the passageway is proceeding below. This same construction method was successfully used by the County at a similar crossing below the same roadway approximately 2 miles to the north.

The County is delivering the project using a Construction Manager at Risk (CMAR), an innovative delivery method to mitigate risk, improve the construction schedule, streamline the design process, improve the decision-making process with better information and develop a project that adheres to the budget. Throughout the design, the CMAR contractor evaluates the constructability of the design plans to reduce risk in all phases with innovative approaches to meet budget goals.

Taking advantage of The Wilson & The Elm Building re-development, the County came to an agreement with the building developer, Carr Properties, to build a portion of the passageway within the lower level of their building. The County used a Transportation Impact Tax Credit to spur this agreement with the developer. This was an innovative approach from a planning, design and construction standpoint in addition to a finance standpoint.

V. Project Readiness

Montgomery County anticipates completing the Community Connector Project in time for the opening of the Purple Line in late 2026.

All funds will be obligated before the statutory deadline of June 30, 2026 and expended well before the deadline of September 30, 2031. As detailed in Figure 17 below, assuming a November 2022 RAISE grant award, the project utility relocations would begin in July 2024 with passageway construction beginning in October 2024. The duration of passageway construction, including surface trail, Elm Street Park redevelopment, and fit-out of the bicycle parking area is anticipated to be 24 months. Therefore, the Community Connector project would be completed in the Fall of 2026, concurrently with the opening of the Purple Line and portion of the CCT between Elm Street Park and Silver Spring.

Montgomery County has a well-supported, innovative and knowledgeable Department of Transportation including staff who are experienced in administering US DOT Grants, including a 2017 Tiger Grant for the US 29 Bus Rapid Transit (BRT) Project.

In addition, Montgomery County DOT has technical experience successfully delivering a project like the Community Connector Project. The project, called the MD 355 Crossing Project, constructed an underpass below Wisconsin Avenue 2-miles to the north of the Community Connector Project. The MD 355 Crossing Project underpass connected the National Institute of Health (NIH), the Walter Reed National Military Medical Center and the Medical Center WMATA Red Line station. The project, completed in February 2022 for a total cost of \$102 million, improves access to buses and the WMATA Metrorail Red Line and helps ensure the safety of pedestrians in a very busy and growing transportation district. The Community Connector Project has similar safety and mobility outcomes 2-miles south along the same roadway, in the heart of downtown Bethesda.

With the RAISE grant funding secured, a groundbreaking ceremony with community groups, project stakeholders and local elected officials is expected in early 2024.

Project Schedule

Preliminary design of the Project started in 2016 with coordination with Carr Properties to develop the portion of the passageway within The Wilson & The Elm Building. In 2017, Montgomery County started planning for the portion of the passageway below Wisconsin Avenue, Elm Street and within Elm Street Park. Extensive coordination with MNCPPC was held to develop options for the horizontal and vertical alignment of the passageway and

the surface trail spur within the Park. The options were developed to minimize impacts to the Park, maximize the usable space for playground equipment and other features of the redeveloped Park, and exceed ADA requirements for the CCT and the Park. In 2019, after extensive coordination with MNCPPC, Town of Chevy Chase and public input, the selected option was chosen as it achieved the goals for the Park and the CCT. MCDOT preferred the passageway to extend into the Park instead of ending along Elm Street to eliminate an at-grade crossing at 47th Street and maintain two lanes of traffic on Elm Street. In addition, MCDOT preferred a passageway alignment with a gentle horizontal curve to increase sight distance and safety in the passageway. These goals led to a passageway alignment that cuts through the center of the northern portion of the Park. To ease MNCPPC concerns and retain full use of the park, the County agreed to add fill over the top of the passageway and retaining walls along the edge of the Park to bury the passageway, create elevation differences with the Park to allow the area over the passageway to be used as part of the Park redevelopment and add interest to the interactive features of the Park. This close cooperation between Montgomery County and MNCPPC created an innovative project design that benefits both Trail and Park users while contributing to the goals of health - improvement, engagement and reconnection of communities, and driver of economic inclusivity.

Once the alignment was chosen, preliminary design commenced. Due to the complexity of the Project, the County decided to utilize a Construction Manager At Risk (CMAR) innovative project delivery method. The Request for Proposals (RFP) for the CMAR was advertised on January 28, 2019, with the selection on April 26, 2019. Montgomery County developed 35% plans in October 2019 and 70% plans in February 2020. This allowed the County to present the project to the County Planning Board for Mandatory Referral on October 14, 2021. As the project design is funded by Montgomery County, 100% design documents are anticipated to be completed in February 2023. The project schedule is shown in **Figure 19**.

Regional, State and Local Planning

The [Montgomery County Bicycle Master Plan](#), adopted in December 2018, recommends the Community Connector passageway route and the grade separated crossing of Wisconsin Avenue. The Master Plan identifies the project as a Tier 1 Bikeway Project. Tier 1 projects are those that are likely to have the highest demand due to their location around Transit stations and high-density areas. The Master Plan also recommends both long-term and short-term parking for 460 bicycles in the bicycle parking area to be fit out as part of this Project. [The Bethesda Downtown Plan](#), adopted in May 2017, recommends redevelopment of Elm Street Urban Park. The Plan notes that "Redevelopment of this key park will add new and improved recreational opportunities and provide better access to the Capital Crescent Trail from the Bethesda Downtown Plan area and the surrounding residential communities."

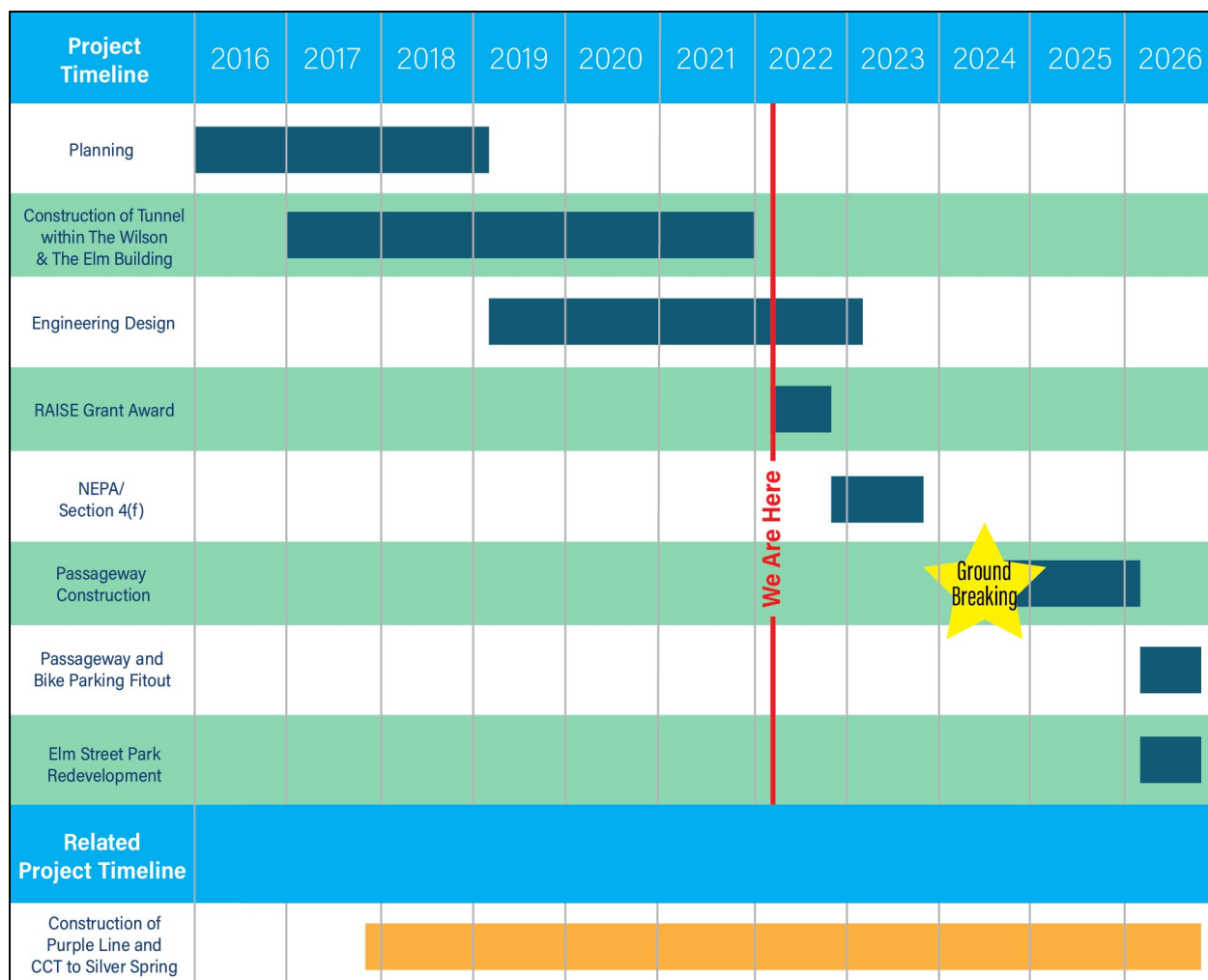


Figure 19: Outline of Project Schedule

The National Capital Region Transportation Planning Board (TPB) approved the National Capital Trail Network, a 1,400-mile, continuous network of long-distance, off-street trails, serving the entire region in August 2020. The entirety of the CCT including the gap to be closed by this Project is included in the Network. The National Capital Trail was incorporated into the TPB's long-range transportation plan, Visualize 2045. The TPB recommends prioritizing projects that will implement portions of the National Capital Trail Network.

NEPA

Since the Project was previously funded only by Montgomery County local funds, a NEPA environmental review has not commenced for the Project. However, the Project sponsors have completed evaluations of natural resources as well as cultural resources. Through prior and on-going coordination with U.S. Fish and Wildlife Service, Maryland Department of Natural Resources, and Maryland Historic Trust (Maryland's State Historic Preservation

Office), it was determined that the Project does not affect any wetlands, streams, rare threatened and endangered species or cultural or historic resources.

In addition to NEPA, a Section 4(f) Evaluation will likely be required due to the anticipated temporary occupancy of the northern portion of Elm Street Park during the full extent of the construction period. While it is possible that FHWA and MNCPPC may agree that the temporary use of Elm Street Park would be considered *de minimis*, to anticipate the maximum time required for Section 4(f) coordination and analysis, it is assumed that an individual Section 4(f) Evaluation will be required. Montgomery County has already evaluated several alternatives to avoid impacts to the Park and has had extensive coordination with MNCPPC to minimize harm and restore the Park to better than existing conditions by designing a state-of-the-art playground on top of the proposed passageway. Therefore, a large portion of the analysis and coordination required for the Section 4(f) Evaluation has already commenced or been completed for reference in coordination.

Due to the limited impacts of this project, it is anticipated that the project will qualify for a Categorical Exclusion (CE). Montgomery County anticipates beginning the formal NEPA and Section 4(f) coordination with MDOT SHA and FHWA in November 2022 with completion anticipated by November 2023. The following activities are anticipated to occur within that period:

- Prepare the Draft CE – Prepare the supporting environmental documentation and analysis for use in coordinating and preparing the CE including information on parkland resources, cultural resources, natural resources, noise, air quality, and climate change.
- Prepare the Draft Section 4(f) Evaluation – Document the use of Elm Street Park, the avoidance analysis that was completed to evaluate all feasible and prudent alternatives that would avoid or minimize impacts to the Park, preparation of a Least Overall Harm Analysis, identification of measures to minimize harm, and documentation of the consultation and coordination with MNCPPC.
- Address MDOT SHA and FHWA comments on the Draft CE and Draft Section 4(f) Evaluation.
- Hold a public meeting to obtain feedback from the public on the Section 4(f) impact and the findings of the CE.
- Finalize the CE and Section 4(f) Evaluation to include documentation of public meeting and any additional MDOT SHA and FHWA revisions.

Local Environmental Permit Approval

The County has acquired the following local permits and environmental approvals for the Project:

- MNCPPC Natural Resource Inventory/Forest Stand Delineation (NRI/FSD) to document and map the locations of all existing environmental on-site features.
- MNCPPC Planning Board approval of the Mandatory Referral and Forest Conservation Plan
- Montgomery County Department of Permitting Services (DPS) approval of the Combined Stormwater Management/Site Development Report

The following local permits and approvals are anticipated to be acquired with the 100% design submission in early 2023.

- Final Forest Conservation Plan
- DPS Sediment Control Plan

Public Engagement & Partnering

A critical component of any transportation project is the feedback and collaboration with the local community. A summary of the completed and anticipated outreach for the Project is shown below. Outreach included both in-person (**Figure 20**) and virtual attendance options.

Outreach Event	Date
Bethesda Bikeways Public Meeting	October 9, 2018
CCT Tunnel & Surface Trail Projects Public Meeting	January 29, 2020
Montgomery County Planning Board Mandatory Referral Hearing	October 14, 2021
Section 4(f) Evaluation Public Outreach	Spring/Summer 2023

In addition to coordination with MNCPPC, MDOT MTA and the Town of Chevy Chase, the County has also coordinated with WMATA and received their determination that there will not be detrimental impacts to the WMATA Red Line tunnel from the CCT passageway, which is located above the Red Line tunnel. This was an important step as it ensured complicated monitoring of WMATA facilities would not be required during construction.



Figure 20: CCT Projects Public Meeting held 1/29/2020

The Project will be implemented within Montgomery County and Town of Chevy Chase right-of-way; therefore, property acquisition is not required. The County is in the process of developing MOUs with MDOT SHA and the Town of Chevy Chase for

maintenance of the passageway and surface trail below Wisconsin Avenue and along 47th Street, respectively, and anticipate these being in place at the time of final design in early 2023.

The project has strong support from the community, with WABA stating that *“The tunnel is critical not just for Bethesda, but for preserving safe access to jobs, recreation, transit and services from all the neighborhoods connected by the region’s trail network.”* A 2015 [Bethesda Magazine](#) article also discusses the immense popularity of the CCT and the need to increase the portion from Georgetown to Bethesda to 16-foot wide; the trail width being used on the Community Connector Project.

Assessment of Project Risks and Mitigation Strategies

The benefits of a CMAR project delivery method include reduced risk since the Contractor is involved during the design process. As part of the CMAR approach, Montgomery County administered a risk workshop as part of the design process with the Project Designer and Contractor. The risk workshop consisted of designer, contractor, and County multidisciplinary experts who evaluated the project critically from a cost, schedule, and impact standpoint. The major risks and the mitigation strategies are outlined below. The County is committed to continuing work with the CMAR Partner to update the risk registrar through final design and construction.

RISK	Mitigation
Delays by utility companies to relocate utilities in advance of passageway construction	Relocation of utilities prior to passageway construction once RAISE grant construction funding secured
Encountering unknown utilities during construction	Majority of risk already mitigated due to extensive utility mapping including over 80 test pits already taken during preliminary engineering. Additional test pits will be taken prior to construction.
Public expectations of impacts to roadways and sidewalks during construction	Extensive public relation plan targeted to local businesses and residents. Risk is also mitigated by maintaining all travel lanes on Wisconsin Avenue.
Material and Labor inflation increasing project cost beyond local match	Constant coordination with CMAR partner to understand cost inflation and potentially purchase materials in advance if deemed to be cost beneficial
Access to The Wilson and The Elm Building for passageway and Bike Parking fit out during construction	Maintain good working relationship and provide 4-week look ahead schedule to Carr Properties (building developer) during construction

VI. Benefit Cost Analysis

An objective and transparent Benefit-Cost Analysis for the Community Connector Project was completed and is provided in [Appendix D](#). The analysis demonstrates an overall Benefit-Cost Ratio of 1.5 using a 7% discount rate and 4.9 in undiscounted dollars. In addition to the Project's obvious safety benefits, the project has additional clear benefits to travel time and quality of the journey.

Throughout its early planning and design, the Community Connector Project has been intended to increase safety, mobility and connectivity in a manner consistent with Montgomery County's Vision Zero policy with an emphasis on equitable and sustainable transportation. As such, it is no surprise that the Project yields significant, quantifiable benefits in these areas. A summary of the Project's cost and benefits are shown in **Figure 21** on the following page.

Project Benefit-Cost Summary

1.5 at 7% Discount

2.7 at 3% Discount

4.9 Undiscounted

The benefit-cost analysis follows the USDOT's recently updated *Benefit-Cost Analysis Guidance for Discretionary Grant Programs, March 2022*. The analysis focuses on those benefit areas which resulted from the Project's primary purposes and does not attempt to demonstrate other benefits which may be secondary (such as health benefits and economic impacts) and contribute only marginal quantifiable benefits. Important Project background and assumptions are described in [Appendix D](#). The method of calculations is also described in detail. The benefit-cost spreadsheet model is available as [Appendix E](#).

Benefit	3% discount rate (in \$millions)	7% discount rate (in \$millions)	Undiscounted (in \$millions)
Journey Quality Ped	\$2	\$1	\$4
Journey Quality Bike	\$4	\$2	\$9
Value of Time Car	\$11	\$5	\$22
Value of Time Truck	\$0	\$0	\$1
Safety Cost	\$111	\$50	\$234
Total Benefits	\$129	\$58	\$270

Costs	3% discount rate (in \$millions)	7% discount rate (in \$millions)	Undiscounted (in \$millions)
Capital Investment Costs	\$47.6	\$39.2	\$55.3
Operation and Maintenance Costs	\$1.0	\$0.5	\$2.0
Total Costs	\$49	\$40	\$57

	3% discount rate (in \$millions)	7% discount rate (in \$millions)	Undiscounted (in \$millions)
Net Present Value	\$80	\$18	\$213
	3% discount rate (in \$millions)	7% discount rate (in \$millions)	Undiscounted (in \$millions)
Benefit/Cost Ratio	2.7	1.5	4.9

Figure 21: Benefit Cost Analysis Summary Results



MONTGOMERY COUNTY PLANNING BOARD
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION